UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,458	03/15/2004	Clifford T. Schmitt	FARA-1-1002	1223

7590 06/12/2006

David A. Lowe, Esq.
BLACK LOWE & GRAHAM PLLC
Suite 4800
701 Fifth Avenue
Seattle, WA 98104

EXAMINER	
CHRISTENSEN, RYAN S	

ART UNIT	PAPER NUMBER
2856	

DATE MAILED: 06/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/800,458	SCHMITT ET AL.	
	Examiner	Art Unit	
	Ryan Christensen	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 April 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-5,17-22 and 24-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *5,20,24 and 25* is/are allowed.

6)☒ Claim(s) *1,3,4,17,19,21,22 and 26* is/are rejected.

7)☒ Claim(s) *18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. With respect to claims 1-4, Applicant's arguments filed 4/11/2006 have been fully considered but they are not persuasive. Applicant argues that neither U.S. Patent 6,666,068 (Boyd et al.) nor U.S. Patent 5,150,22 (Vollweiller) disclose a method for monitoring the subsurface under a facility for volatile organic compounds including the step of determining the location at which to monitor subsurface volatile organic compounds based on the proximity to where the volatile organic compound to the subsurface under a facility is made possible by facility structure. However, Boyd et al. disclose that "it is important to detect VOC vapors as close to the source of release as possible," and discusses how VOC gasses permeate the concrete slab of a facility and accumulate (Col. 1, lines 41-56). Applicant attempts to distinguish further by saying Boyd et al. do not disclose monitoring for weak points of structure where VOC is likely to seep into the ground. However, "facility structure" as claimed is not limited to such weak points, but does include the structure that would release VOCs that then penetrate the concrete slab (Boyd et al., Col. 1, line 47-51).
2. Vollweiler also discloses inserting a probe near a potential leak source (Col. 1, lines 17-23) (ie. selecting a location based on the proximity to where the VOC release to the subsurface under the facility is made possible by facility structure). The examiner sees "facility" as a broad term relating to any cite or location.

Further, a "facility structure" includes a fuel storage tank buried underground. The release VOCs into the subsurface is made possible by the fuel storage tank being placed underground and Vollweiler discloses pick and place to test based on proximity to these underground tanks.

3. With respect to claims 5, Applicant's arguments have been fully considered and are persuasive. The rejection of claim 5 has been withdrawn.

4. Applicant's arguments with respect to claim 17 have been considered but are moot in view of the new ground(s) of rejection. It should be noted claims 21 and 22 depend on claim 17. Page 11 of the Applicants response dated April 11, 2006 contained a minor typographical error indicating claims 21 and 22 should be allowable for there dependence on an allowable claim, 20.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. With respect to claim 1, it is not clear if the "if subsurface...structure" (lines 5-9) is a limitation, as use of the term "if" (line 5) expressly implies either "yes" or maybe "no". While the passage implies a step of determination if subsurface monitoring is appropriate, the passage clearly expresses that lines 2-5 (of the quoted passage) are not to be construed as a limitation if the answer is no. While this type of limitation may be acceptable in an apparatus claim (as there is not

question as to how the apparatus would operate), in a method claim conditional limitations provide for indefiniteness.

Claim Rejections - 35 USC § 102(e)

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1, and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 6,666,068 (Boyd et al.). With respect to claim 1, Boyd et al. disclose a method for monitoring the subsurface under a facility for volatile organic compounds (abstract), comprising: evaluating a facility for applicability of subsurface monitoring of volatile organic compounds (Col. 4, lines 30-33); if subsurface monitoring of volatile organic compounds is appropriate at the facility, determining the location at which to monitor subsurface volatile organic compounds at the facility(Col. 4, lines 30-33); installing a volatile organic compound monitoring station at the determined location at the facility (Col. 4, lines 30-33); collecting soil vapor samples using the volatile organic compound monitoring station (abstract); and analyzing the collected soil vapor sample for the presence of volatile organic compounds(abstract), determining the location at

which to monitor subsurface volatile organic compounds at the facility is based on the proximity to the location where volatile organic compound release to the subsurface under the facility is made possible by the facility structure (Col. 4, lines 30-33 and Col. 1, lines 41-56).

9. With respect to claim 3, Boyd et al. disclose if volatile organic compounds are present in the collected soil vapor sample, investigating the subsurface under the facility to determine if significant quantities of volatile organic compounds are present (Col. 5, lines 29-41).

Claim Rejections - 35 USC § 102 (b)

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,150,622 (Vollweiler). With respect to claim 1, Volleiler discloses a method for monitoring the subsurface under a facility for volatile organic compounds (abstract), comprising: evaluating a facility for applicability of subsurface monitoring of volatile organic compounds (Col. 2, lines 56-60); if subsurface monitoring of volatile organic compounds is appropriate at the facility, determining the location at which to monitor subsurface volatile organic compounds at the facility (Col. 2, lines 56-60); installing a volatile organic

compound monitoring station at the determined location at the facility (Col. 2, lines 56-60) based on the location where volatile organic compound release to the subsurface under the facility is made possible by the facility structure (Col. 2, lines 56-60); collecting soil vapor samples using the volatile organic compound monitoring station (Col. 1, lines 18-24); and analyzing the collected soil vapor sample for the presence of volatile organic compounds (abstract and Col. 1, lines 13-17).

12. With respect to claim 3, Vollweiler discloses if volatile organic compounds are present in the collected soil vapor sample, investigating the subsurface under the facility to determine if significant quantities of volatile organic compounds are present (monitoring, abstract).

13. With respect to claim 4, Vollweiler maintaining data related to the collected soil vapor sample (Col. 3, lines 45-50).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

15. Claims 17, 19, 21, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,666,068 (Boyd et al.) in view of U.S. Patent 6,405,135 (Adriany et al.).

16. With respect to claim 17, Boyd et al. disclose a soil probe for monitoring the subsurface under a facility surface for volatile organic compounds (abstract), comprising: a monitoring port (Fig. 2, 56) having an end filter (Fig. 2, 15) in communication with the subsurface under the facility surface (Fig. 2), an aperture and a neck (56, Fig. 4) in proximity to the aperture (Fig. 4); a monitoring port cap (Fig. 6, 58) configured to close the monitoring port to minimize the movement of undesirable materials between the facility and the subsurface via the monitoring port; and a sampling adaptor (Fig. 8, 63) configured to interface with the monitoring port and a sampling pump to allow the withdrawal of a soil gas sample from the subsurface under the facility surface (Fig. 1).

17. Boyd et al. do not explicitly disclose a mounting plate. However, Adriany et al. disclose mounting plate or a lip protruding over the surface penetration in Fig. 3.

18. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system taught in by Boyd et al. with a mounting plate, as disclosed in Adriany et al., in order to ensure the station is installed perpendicularly to the surface and ensure uniform depths of the filters.

19. With respect to claims 19 and 22, Boyd et al. further disclose the monitoring port is a substantially hollow, generally tubular-shaped member having a threaded interior (Fig 2); and the monitoring port cap (plug, 58, Fig. 5) has a threaded exterior (Fig. 5, 60) corresponding to and configured to interface with the threaded interior of the monitoring port (Fig. 7). Boyd et al. do not explicitly disclose an annular sealing member engaging the monitoring port cap and the monitoring port to create a seal and secured to at least one of the monitoring port cap and the monitoring port.
20. However, Adriany et al. disclose a an annular sealing member (O-ring, 42, Fig. 3) engaging the monitoring port cap (40, Fig. 3) and the monitoring port to create a seal and secured to the monitoring port cap (Fig. 3) for creating a substantially air tight seal (Col. 7 line 60 to Col. 8, line 1).
21. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system taught in by Boyd et al. with an annular sealing member, as disclosed in Adriany et al., in order prevent vapor from escaping to the surface (Adriany et al., Col. 7 line 60 to Col. 8, line 1).
22. With respect to claim 21, Boyd et al. disclose the monitoring port cap (plug, 58) has a sealing element including turning recesses formed therein (Fig. 6, 62); and further comprising a cap tool for use in the installation of the monitoring port cap (screw driver type device, Col. 6, lines 49-54), the cap tool having a configuring engageable with the turning recess of the sealing element including at least one

turning pin corresponding in size and shape to the turning recesses of the monitoring port cap (Col. 6, lines 49-54).

23. With respect to claim 26, Boyd et al. disclose a slotted end (13, Fig. 2) and a solid end (42, Fig. 2). The slots are holes or pours whose size allows for VOC to pass, but not soil (Col.5, lines 22-27).

Allowable Subject Matter

24. Claims 5, 20, 24 and 25 are allowed.

25. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Pertinent Prior Art

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent 5,587,538 (Bratton) discloses a soil probe for sampling volatile organic compounds using a vacuum pump.

U.S. Patent 5,922,950 (Pemberton) discloses a soil probe for monitoring soil gas samples from multiple depths.

U.S. Patent 6,230,820 (Cordry) discloses a soil probe for collecting fluid samples (liquid and gas) with an annular seal to prevent undesired passage of fluids and soil.

U.S. Patent 6,000,481 (Heller) discloses a soil probe for collecting both fluids and soil samples.

Conclusion

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

    A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

28. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan Christensen whose telephone number is 571-272-2683. The examiner can normally be reached on Monday - Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RC

HEZRON WILLIAMS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800